

**REMARKS/ARGUMENTS**

The above Amendments and these Remarks are in reply to the Office Action mailed January 18, 2006.

**I. Summary of Examiner's Rejections**

Claims 1-48 were pending in the Application prior to the outstanding Office Action. In the Office Action, claims 1-4, 8-12, 16-20, 24-28, 32-36, 40-44 and 48 were rejected under 35 U.S.C. § 102(e) as being anticipated by Hotti et al. (U.S. Patent No. 6,970,876). Claims 5-7, 13-15, 21-23, 37-39 and 45-47 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Hotti (U.S. Patent No. 6,970,876) in view of Wotring et al. (U.S. Patent No. 6,665,677).

**II. Summary of Applicant's Amendments**

The present Response cancels Claims 7-8, 15-16, 23-32, 39-40 and 47-48 without prejudice and without disclaimer of the subject matter disclosed therein. The present Response amends claims 1-2, 4-6, 9-10, 13-14, 17-18, 20-22, 33-34, 36-38 and 41-46, and adds claims 49-66, leaving for the Examiner's present consideration claims 1-6, 9-14, 17-22, 33-38, 41-46 and 49-66. Reconsideration of the claims in light of the following arguments is respectfully requested.

**III. Drawings**

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they included reference characters not mentioned in the description. The specification was amended in order to add reference characters as shown starting on page 2. Applicant respectfully submits that with these amendments the drawings are now in compliance with 37 CFR 1.84(p)(5).

**IV. Specification**

The abstract of the disclosure was objected to because of the legal phraseology and for simply reciting claim 1 of the invention. The abstract has been amended, and a clean version of the abstract is shown on page 6. Applicant respectfully submits that the abstract as amended overcomes this objection.

**V. Claims Rejected Under 35 U.S.C. § 112**

Claims 1-48 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 1, 6, 9, 14, 17, 22, 33, 38, 41 and 46 have been amended in order to overcome any

indefiniteness. Applicant respectfully submits that these claims now properly conform to the requirements of 35 U.S.C. § 112, and reconsideration thereof is respectfully requested.

#### VI. Claims Rejected Under 35 U.S.C. § 101

Claims 25-32 and 41-48 were rejected under 35 U.S.C. § 101 because the claimed invention is directed to non-statutory subject matter.

Regarding claims 25-32, it was stated that a "computer data signal embodied in a transmission medium" does not fall within any of the categories of patentable subject matter set forth in 35 U.S.C. § 101. Claims 25-32 have been canceled.

Claims 41-48 recite a "machine readable medium." It was stated that these claims are rejected under 35 U.S.C. § 101 for failing to claim patentable subject matter because they carry a broader scope than a "transmission medium" as found in claims 25-32, and thus are accordingly rejected for the same reasons. In applicant's specification a computer readable medium is disclosed. Independent Claim 41 has thus been amended to require a *computer* readable medium having instructions stored thereon that when executed by *one or more processors on the computer* cause the *computer* to perform steps. (Spec., para. 0053). Claims 42-46 have similarly been amended to require a computer readable medium. As mentioned above, Claims 47 and 48 have been canceled.

It was stated that the claimed signal of Claims 25-32, and thus the claimed machine readable medium of Claims 41-46, are not a process, machine, manufacture or composition of matter. According to the "Computer-Related Nonstatutory Subject Matter" section of the *Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility*, Annex IV, p. 50, the court in Warmerdam, 33 F.3d at 1360, 31 USPQ2d at 1759, found that when functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized. For Claim 41, the functional descriptive material is at least the step of performing an operation on the node. In Claim 41, instructions to execute at least this step are stored, or recorded, on a computer readable medium, and are thus statutory because the use of technology, or the computer and computer readable medium, permits the function of performing an operation on the node to be realized. Applicant respectfully submits that with the amendments to Claims 41-46, these claims now are directed to statutory subject matter under 35 U.S.C. § 101. Reconsideration of Claims 41-46 is respectfully requested.

## VII. Claims Rejected Under 35 U.S.C. § 102(e)

In the Office Action mailed January 18, 2006, Claims 1-4, 8-12, 16-20, 24-28, 32-36, 40-44, and 48 were rejected under 35 U.S.C. § 102(e) as being anticipated by Hotti et al. (U.S. Patent No. 6,970,876, hereinafter referred "Hotti"), filed on May 8, 2001, and issued on November 19, 2005.

Hotti discloses management of distributed databases, in which a configuration management node 231 manages configuration management replicas 203, 213 and 223 in each part 201, 211, and 221 of the distributed database system 200. (Abstract and Fig. 2A). *Master database node* 202 and *replica database nodes* 212, 222 form a distributed system, wherein the application replica database nodes can maintain a full or partial copy (replica) of the application master database servers' data. (col. 6, lines 6-10). A configuration management node 231 includes a configuration management application for managing schemas and application configuration of the database system, where the *schemas* are the structure information for tables, indices, procedures, triggers, etc. (col. 6, lines 17-21 and col. 3, 56-57). No hierarchical structure exists for the configuration management node, master database nodes or replica database nodes, as there is no need to differentiate between types of content or data in these replicated databases.

Independent Claim 1 has been amended to require a *plurality of content repositories* having *different types of content*. The present application different types of content such as newspaper archives, advertisements, inventories, image collections, etc. (Spec., para. 0013). Collectively, this plurality of content repositories forms the virtual content repository. No replication of repositories is involved. Hotti, on the other hand, discloses *one repository or database*, such that one set of data, or *one type of content*, is replicated from the database to other empty database nodes.

Claim 1 has also been amended to require creating a hierarchy of *hierarchy nodes* in the VCR comprising the substeps of indicating a location of each hierarchy node in the hierarchy by an identifier and relating each hierarchy node to a type of content. This hierarchy of hierarchy nodes is needed to organize or group together different types of content. For example, Fig. 7 shows a Virtual Content Repository (VCR) having four hierarchy nodes "HR," "Images," "Marketing," and "Products." A node has a name, an ID, and can include a path, such as a Unix-like directory path format such as "/a/b/c." Hotti, however, does not disclose a hierarchy of nodes because it discloses just one type of content.

Claim 1 has also been amended to require associating the hierarchy node with *at least one content node*. Fig. 8 shows a "Products" hierarchy node having four *content nodes* 806, "Laptop," "PocketPC," "Server," and "Wireless Card." Content nodes are also hierarchy nodes but also contain information about the content repositories, which in this example are repositories for product images. Hotti, on the

other hand does not teach or suggest content nodes associated with a hierarchy node based on content type.

Claim 1 has also been amended to require associating each hierarchy node with a first *schema* and each content node with a second *schema*. Each schema may be associated with one or more properties. (Spec., para. 0038). In example content node editor window 804, a *schema* named "product" for the "Laptop" content node is shown having five properties of "Style," "Description," "Color," "SKU," and "Image." (Spec., para. 0048). Properties can have a name and zero or more values. (Spec., para. 0038). Properties are also associated with property definitions including property choices, a reference, a data type, whether the property is mandatory, whether the property is multi-valued, whether the property is primary, whether the property is read-only, whether the property is restricted. (Spec., para. 0040 and 0041). A schema can be referred to as "metadata" since it does not constitute the content of the VCR. (Spec., para. 0039). As disclosed in Hotti, however, schemas are the structure information for *database* tables, fields, indices, procedures, triggers and triggers, as discussed above but not metadata for content of different types, as required by Claim 1.

Thus, Hotti does not disclose or suggest for a plurality of content repositories having different types of content creating a hierarchy of hierarchy nodes in the VCR comprising the substeps of: indicating a location of each hierarchy node in the hierarchy by an identifier; relating each hierarchy node to a type of content; and associating each hierarchy node with a first schema; grouping each hierarchy node with at least one content node and associating each content node with a second schema, as required by Claim 1. For at least these reasons, Claim 1 is neither anticipated by, nor obvious in view of Hotti. Applicant respectfully requests reconsideration of the claim.

#### Claim 4

Claim 4 depends from Claim 1 and has been amended to require that each one of the plurality of content repositories is integrated into the VCR by use of one or more of a VCR browser, a content node editor, a schema editor and a property editor. (Spec., paras. 0047, 0048, 0049 and 0050). As discussed above for Claim 1, Hotti does not teach at least a VCR and a content node, and thus does not teach use of one or more of a VCR browser, a content node editor, a schema editor and a property editor. For at least this reason, Claim 4 is neither anticipated by, nor obvious in view of Hotti. Applicant respectfully requests reconsideration of the claim.

#### Claim 9

The comments provided above with respect to Claim 1 and Claim 4 are hereby incorporated by reference. Claim 9 has been similarly amended to more clearly define the embodiment therein. For

similar reasons as provided above with respect to Claim 1 and Claim 4, Applicant respectfully submits that Claim 9, as amended, is likewise neither anticipated by, nor obvious in view of the cited references, and reconsideration thereof is respectfully requested.

#### Claim 12

Claim 12 depends from Claim 9 and requires that the identifier is a *path*. As required by Claim 9, the identifier indicates the *location of each hierarchy node in the hierarchy*. It was stated that Hotti discloses that the invention of synchronizing a configuration management replica with its master can be implanted...with TCP/IP. This use of TCP/IP instead determines the *location of the databases* in a filesystem path. Further, as discussed above for Claim 1, Hotti does not disclose hierarchy nodes. The path of present invention, on the other hand, can be a Unix-like directory path format such as "a/b/c" where "/" is a federated root, "a" is a repository, "b" is a node in the "a" repository and "c" is the node's name. (Spec., para. 0038). Thus, Hotti does not require that the identifier is a path. For at least this reason, Claim 12 is neither anticipated by, nor obvious in view of Hotti. Applicant respectfully requests reconsideration of the claim.

#### Claims 17, 33 and 41

The comments provided above with respect to independent are hereby incorporated by reference. Independent Claims 17, 33 and 41 have been similarly amended to more clearly define the embodiments therein. For similar reasons as provided above with respect to Claim 1, Applicant respectfully submits that Claims 17, 33 and 41, as amended, are likewise neither anticipated by, nor obvious in view of the cited references, and reconsideration thereof is respectfully requested.

#### Claims 2-3, 10-11, 18-19, 34-35 and 42-43

Claims 2-3, 10-11, 18-19, 34-35 and 42-43 are not addressed separately, but it is respectfully submitted that these claims are allowable in view of the comments provided above. Applicant respectfully submits that Claims 2-3, 10-11, 18-19, 34-35 and 42-43 are similarly neither anticipated by, nor obvious in view of the cited references, and reconsideration thereof is respectfully requested. It is also submitted that these claims also add their own limitations which render them patentable in their own right. Applicant respectfully reserves the right to argue these limitations should it become necessary in the future.



Claims 20, 36 and 44

The comments provided above with respect to Claim 4 are hereby incorporated by reference. Claims 20, 36 and 44 have been similarly amended to more clearly define the embodiment therein. For similar reasons as provided above with respect to Claim 4, Applicant respectfully submits that Claims 20, 36 and 44, as amended, are likewise neither anticipated by, nor obvious in view of the cited references, and reconsideration thereof is respectfully requested.

Claims 8, 16, 24, 25-28, 32, 40 and 48

Applicant cancels Claims 8, 16, 24, 25-28, 32, 40 and 48 without prejudice and without disclaimer of the subject matter disclosed therein.

#### **VIII. Claims Rejected Under 35 U.S.C. § 103(a)**

Claims 5-7, 13-15, 21-23, 29-31, 37-39, and 45-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over HOTTL in view of Wotring et al (U.S. patent No. 6,665,677, hereinafter referred to as a WOTRING), filed on October 2, 2000, and issued on December 16, 2003.

Claims 5-6, 13-14, 21-22, 37-38 and 45-46

Claims 5-6, 13-14, 21-22, 37-38 and 45-46 are not addressed separately, but it is respectfully submitted that these claims are allowable in view of the comments provided above. Applicant respectfully submits that Claims 5-6, 13-14, 21-22, 37-38 and 45-46 are similarly neither anticipated by, nor obvious in view of the cited references, and reconsideration thereof is respectfully requested. It is also submitted that these claims also add their own limitations which render them patentable in their own right. Applicant respectfully reserves the right to argue these limitations should it become necessary in the future.

Claims 7, 15, 23, 29-31, 39 and 47

Applicant cancels Claims 7, 15, 23, 29-31, 39 and 47 without prejudice and without disclaimer of the subject matter disclosed therein.

#### **IX. Conclusion**

In light of the above, it is respectfully submitted that all of the claims now pending in the subject patent application should be allowable, and reconsideration of the claims is respectfully requested. The Examiner is respectfully requested to telephone the undersigned if she can assist in any way in expediting issuance of a patent.

The Commissioner is authorized to charge any underpayment or credit any overpayment to Deposit Account No. 06-1325 for any matter in connection with this response, including any fee for extension of time, which may be required.

Respectfully submitted,

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